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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,564	03/27/2006	Jean-Philippe Pascal	273837US0PCT	4335
22850	7590	08/16/2010		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER CHOI, FRANK I	
			ART UNIT 1616	PAPER NUMBER
			NOTIFICATION DATE 08/16/2010	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/539,564	<b>Applicant(s)</b> PASCAL ET AL.	
	<b>Examiner</b> FRANK I. CHOI	<b>Art Unit</b> 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 12, 13, 15-18 and 20-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12, 13, 15-18 and 20-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 12, 13, 15-18, 20-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims have been amended to indicate that the “acaricidal aqueous solution is free of any other neurotoxic acaricidal substance”, however, there is no disclosure in the Specification that sodium bicarbonate is neurotoxic. Since the only other acaricidal substance specifically set forth in the claims is the sodium bicarbonate, the phrase “any other neurotoxic acaricidal substance” must be interpreted as referring to sodium bicarbonate as being a member of the genus of neurotoxic acaricidal substances.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12, 13, 15-18, 20-23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Einziger et al. (US Pat. App. Pub. 2002/0172713) in view of Vrba (US Pat. 5, 122,518),

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Guerassimoff (US Pat. App. Pub. 2003/0099680), Simpson et al. (US Pat, 5,254,386), Howari et al., Potter and Hart.

The claimed method is directed to a method for treating an element of the human environment by applying an acaricidal aqueous solution comprising at least 10 g/l of sodium bicarbonate and evaporating the water from the solution such that the sodium bicarbonate crystallizes in the form of grains that adhere to the outer surface of an acarid.

Einziger et al. discloses a sodium bicarbonate slurry containing about 50-80% of sodium bicarbonate and 20-50% of a liquid medium, such as water, based on 100% by weight of the slurry, where the sodium bicarbonate is in the form of particles having a median particle size of from about 0.2 microns to about 50 microns (paragraphs 0023-0030). It is disclosed that an alkali metal bicarbonate slurry when combined with addition water to form a dilution will have dissolved sodium bicarbonate; for example a dilution made from a sodium bicarbonate slurry having 70% by weight sodium bicarbonate will have 8.5% dissolved sodium bicarbonate (paragraph 0005). It is disclosed that a pesticidal product can comprise the slurry (Claim 23).

Vrba discloses an aqueous dispersion which contains silica which is sprayed on a surface and allowed to dry forming a layer on the surface which is effective against arachnida exposed to it, including red mites in chickens and lice, mites and ectoparasites in poultry (Column 3, lines 15-68, Column 4, lines 1-65).

Guerassimoff discloses an aqueous suspension which contains particles of silica which can be applied to the pest and/or pest habitat and dried (paragraphs 0001, 0009-0011). It is disclosed that physical abrasion against the body of the pest by small particles and by small particles size which find their way into the leg joints and other mobile parts of the pests abrade

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the same and ultimately injure or kill the pest (Paragraph 0044). It is disclosed that the composition is effective against external parasites of animals and can be used in domestic and industrial circumstances and applied directly to the pest and/or the pest habitat (paragraph 0001).

Simpson et al. disclose the application of solutions of sodium bicarbonate to carpet surfaces which avoids the problems of over accumulation and over removal by normal vacuuming and cleaning although the sodium bicarbonate was highly visible as a powdery residue, made the carpet stiff and could result in color changes (Page 2, lines 3-25) An aqueous solution is disclosed containing 8% by weight of sodium bicarbonate which sprayed on carpet and dried (Column 6, lines 1-45).

Howari et al. disclose that aqueous solutions of sodium bicarbonate will form crystals when dried. (pages 1454, 1455)

Potter discloses that chiggers are larvae of a family of red mites, that eggs are laid in the soil, that the larvae crawl around until they locate and attach to a suitable host and that chiggers typically bite around the ankles, waistline, armpits or other areas where clothing fits tightly against the skin (Page 1). It is disclosed that scabies infest the skin, cause itching and can be transferred by close contact on bedding (pages 1,2).

Hart discloses that house mites lay eggs on substrates which develop into larvae and eventually adults and that mites are subject to desiccation (Pages 13, 15).

Einzigler et al. discloses pesticides comprising a sodium bicarbonate slurry containing about 50-80% of sodium bicarbonate and 20-50% of a liquid medium, such as water, based on 100% by weight of the slurry, where the sodium bicarbonate is in the form of particles having a median particle size of from about 0.2 microns to about 50 microns and that sodium bicarbonate

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slurries will have dissolved sodium bicarbonate, for example 8.5%, when diluted with water.

The difference between Einziger et al. the claimed invention is that the prior art does not expressly disclose treatment of acarids with an aqueous solution of sodium bicarbonate and the exclusion of neurotoxic acaricidal substances. However, the prior art amply suggests the same as the Enzinger et al. discloses a sodium bicarbonate slurry which when diluted with water will have dissolved sodium bicarbonate and that the same can be used in a pesticide composition, Vrba discloses that aqueous suspensions of silica which are sprayed and dried forming a film with a powdery layer are effective against arachnids in chicken and poultry, Guerassimoff discloses an aqueous suspension which contains particles of silica which can be applied to the pest and/or pest habitat and dried and that physical abrasion against the body of the pest by small particles and by small particles size which find ether way into the leg joints and other mobile parts of the pests abrade the same and ultimately injure or kill the pest, Simpson et al. disclose the spraying of sodium bicarbonate solutions on carpets, Howari et al. disclose that aqueous solutions of sodium bicarbonate will form crystals when dried, Potter discloses that the life cycle of mites include eggs, larvae and adult stages, Hart discloses that house mites lay eggs on substrates which develop into larvae and eventually adults and that mites are subject to desiccation (Pages 13, 15).

As such, one of ordinary skill in the art would have been motivated to combine the same with the expectation that the combination would be effective against arachnids as the dissolved sodium bicarbonate will also form crystals when dried, which crystals will act as an abrasive, which gets into the joints of the pests, which abrasive will injure and/or kill said pests. Further, since the product is effective as an acaricide and that the effectiveness is due to physical

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abrasion, one of ordinary skill in the art would expect that no other acaricidal agent would be necessary, i.e. one of ordinary skill in the art would readily envision an aqueous product containing as the only active agents, dissolved sodium bicarbonate, sodium bicarbonate particles and silica particles which is applied to an environment and dried will result in particles which will abrade the acarid resulting in the death of said acarid. Further, one of ordinary skill in the art would be motivated to apply the product to human environment, including rugs, bedding and clothing as one would expect to contact acarids in said environments.

The Examiner has duly considered the Applicant's arguments but deems them unpersuasive.

The Supreme Court in *KSR International Co. v. Teleflex Inc.*, held the following:

(1) the obviousness analysis need not seek out precise teachings directed to the subject matter of the challenged claim and can take into account the inferences and creative steps that one of ordinary skill in the art would employ;

(2) the obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents;

(3) it is error to look only the problem the patentee was trying to solve-any need or problem known in the field of endeavor at the time of invention and addressed by the prior art can provide a reason for combining the elements in the manner claimed;

(4) it is error to assume that one of ordinary skill in the art in attempting to solve a problem will be led only to those elements of prior art designed to solve the same problem-common sense teaches that familiar items may have obvious uses beyond their primary purposes,

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and in many cases one of ordinary skill in the art will be able to fit the teachings of multiple patents together like pieces of a puzzle (one of ordinary skill in the art is not automaton);

(5) it is error to assume that a patent claim cannot be proved obvious merely by showing that the combination of elements was “obvious to try”. *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396, 1397 (U.S. 2007).

The Applicant argues that the use of “in need thereof” language over comes the rejection. However, as indicated above, in view of the knowledge that it is the abrasive nature of the silica particles which injures the acarid. One of ordinary skill in the art would expect that bicarbonate particles would act similarly. There is no requirement that the prior art expressly disclose that the bicarbonate is acaricidal. See *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993) (reliance on logic and sound scientific reasoning). The fact that a portion of the bicarbonate is dissolved whereas the silica does not dissolve does not overcome the rejection as it is the solid particles that are the active form. Once the water is evaporated any bicarbonate in solution will become solid crystals which can then act on the exoskeleton of the acarid.

Therefore, the claimed invention, as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,



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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

A facsimile center has been established in Technology Center 1600. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier number for accessing the facsimile machine is 571-273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Choi whose telephone number is (571)272-0610. The Examiner maintains a flexible schedule, however, the Examiner may generally be reached Monday, Tuesday, Wednesday and Thursday, 6:00 am – 4:30 pm (EST).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Johann R. Richter, can be reached at (571)272-0646. Additionally, Technology Center 1600's Receptionist and Customer Service can be reached at (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frank Choi  
Patent Examiner  
Technology Center 1600  
August 12, 2010

/Johann R. Richter/  
Supervisory Patent Examiner, Art Unit 1616